

## United States Patent [19]

Degner et al.

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[54] COMPOSITE ELECTRODE FOR PLASMA PROCESSES

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[57]

## ABSTRACT

An electrode assembly for a plasma reactor, such as a plasma etch or plasma-enhanced chemical vapor deposition reactor, comprises an electrode plate having a support frame attached to one surface thereof. The electrode plate is composed of a substantially pure material which is compatible with a particular reaction being performed in the reactor, while the support frame is composed of a material having desirable thermal, electrical, and structural characteristics. The support frame is bonded to the electrode plate using a bonding layer, usually a ductile metallic bonding layer, which provides effective thermal and electrical coupling while permitting a degree of thermal expansion mismatch between the support frame and the electrode plate.

36 Claims, 3 Drawing Sheets

